3.2

FBRC...F-L1X TYPE

PIPE BURST SAFETY VALVE

Nominal size	15	16
Rated pressure(bar)	420	420
Rated flow(L/min)	150	250

Contents

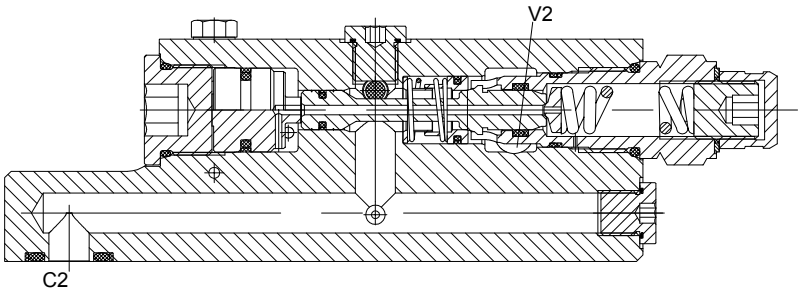
Function and symbols

Upstream flow (V2 - C2) to the cylinder is free through the 2 check valves, and reverse fl ow (C2 - V2) is locked/metered by a leak free spool (1) which provides fine metering in the initial opening stroke. The spool, normally held closed by an adjustable spring force, is remotely controlled by joystick pilot pressure; the pilot pressure required to move the spool is load independent because the spring is vented to Tank. The valve includes a small relief cartridge (2) which senses C2 pressure and opens under overload or shock conditions in order to pilot wide open the metering spool and to allow cylinder pressure to be relieved downstream through the main hose (V2) and through the main control valve. For better safety and compact assembly, the C2 port is gasket mounted directly on the actuator.

This valve is designed to be flange mounted on boom cylinders of hydraulic excavators, and, with specific adjustments, it can become part of load holding and load lowering systems designed to comply with ISO Standard 8643 (hose burst protection).

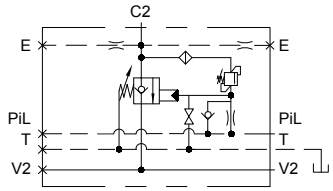
Note: the Tank vented port must be connected to a "low pressure tank line" (to the joystick tank line, or to tank directly).

The restricted "E" port must be connected to a "pressure equalizing line" in case of 2 valves fi tted to 2 twin cylinders, and may be used as "outlet to tank" for emergency boom lowering in case of pilot pressure failure.



Graphic symbol

FBRC15F-L1X



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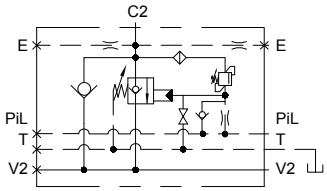
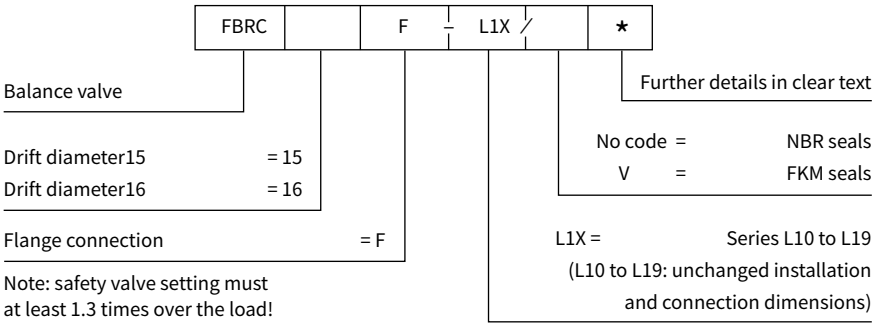


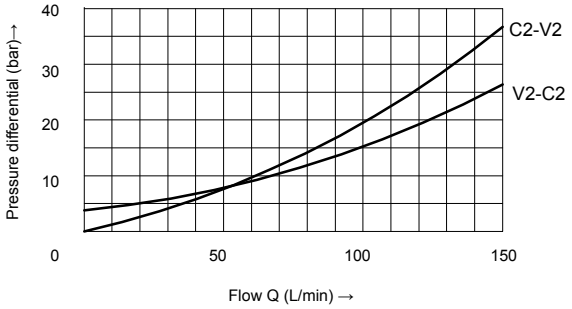
Ordering code

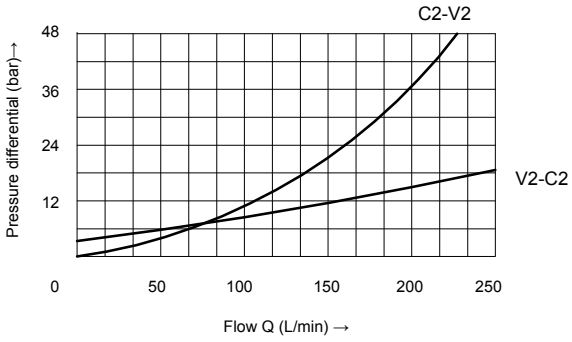


Technical data

Fluid		Mineral oil suitable for NBR and FKM seal
		Phosphate ester for FKM seal
Fluid temperature range	℃	-30 to +80 (NBR seal)
		-20 to +80 (FKM seal)
Viscosity range	mm^2/s	10 to 800
Degree of contamination		Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406
Cracking pressure	bar	420
Max. flow-rate	L/min	15 dia. 150L/min; 16 dia. 250L/min
Weight	kg	15 dia. approx. 11kg; 16 dia. approx.13kg
Main valve pressure adjustment range (factory setting)	bar	3 to 15(7.5)
Safety valve pressure adjustment range (factory setting)	bar	350 to 460 (350)

Characteristic curves (Measured at t=40°C , using HLP46)

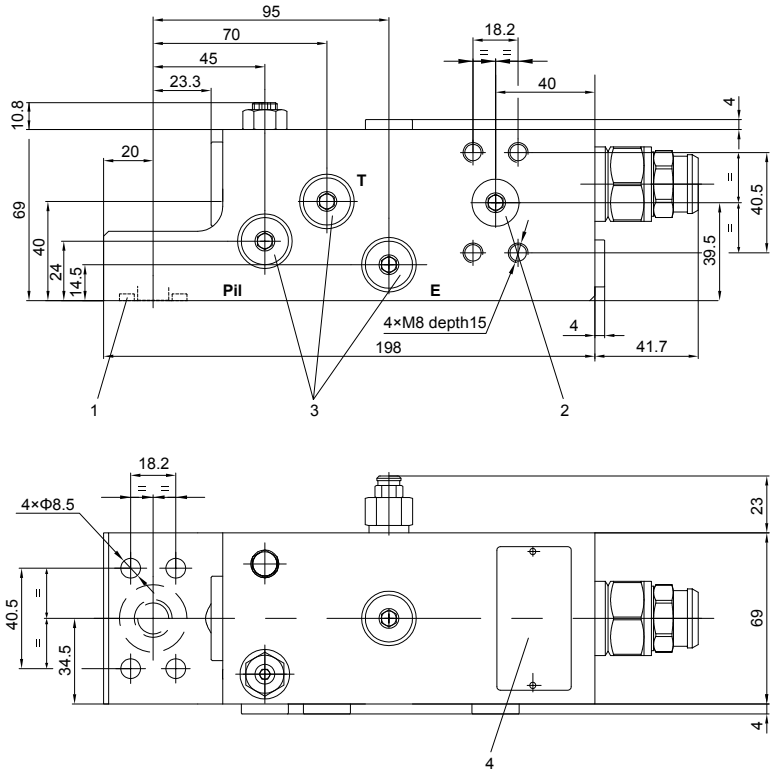




Unit dimensions

(Unit:mm)

· **FBRC15F-L1X**

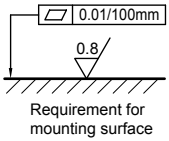


1 O-ring 32.92×3.53

2 Oil port V2, connection with SEA flange or thread M14X1.5

3 Oil p oil port PiL, oil port T and E, connection thread G1/4

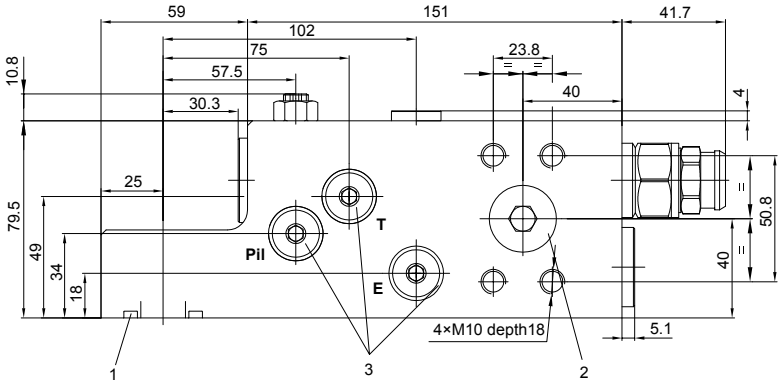
4 Label

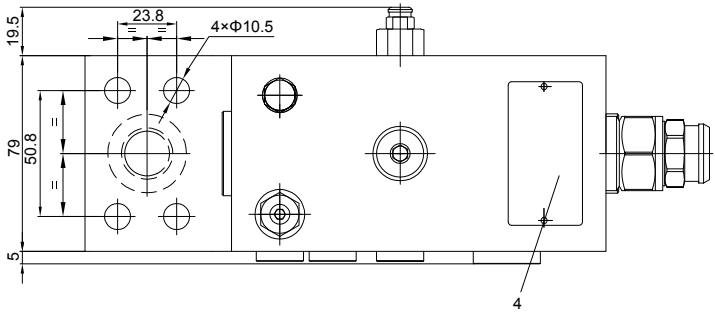


Unit dimensions

(Unit:mm)

· **FBRC16F-L1X**



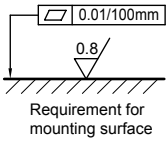


1 O-ring 23.39×3.53

2 Oil port V2, connection with SAE flange or thread G1/2

3 Oil port PiL, oil port T and E, connection thread G1/4

4 Label



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